

SIGAL', M. Z.

USSR/Medicine - Immunology

May/Jun 52

"Autoallergic Reactions and Their Significance in Pathology," M. Z. Sigal', Kazan'

PA 23717

"Uspekhi Sov Biol" Vol 33, No 3, pp 409-430

Discusses autoallergic reactions and their significance in immunology, with particular attention to USSR results (85 Russian references are appended). Describes the formation and effects of auto-cytolysins, autoepitoxin, autoepitoxins, autoepitoxins; gives information on autogenic

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tissue antigens (the action of autonepholysins, autoantigenic properties of eye tissue, the possibilities that nerve tissue may exhibit autogenic properties, etc.)

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SIGAL, M.Z.

Experimental studies on conditioned blood pressure and respiratory reactions. Zhur. vys. nerv. deiat. 4 no.3:415-423 My-Je '54.
(MLRA 8:2)

1. Kazanskiy gosudarstvennyy institut dlya usovershenstvovaniya vrachey imeni V.I.Lenina.

(BLOOD PRESSURE, physiology,
conditioned reactions)

(RESPIRATION, physiology,
conditioned reactions)

(REFLEX, CONDITIONED,
blood pressure & resp. conditioned reactions)

SIGAL, M.Z., kandidat meditsinskikh nauk, assistant; CHIZHOVA, E.I.,
assistant

Reactions of epidermodermal grafts to roentgen irradiation. Vest.
rent. i rad. no.5:33-37 S-O '54. (MLRA 7:12)

1. Is kafedry rentgenologii (sav. prof. M.Kh. Fayzullin) i onkolo-
gicheskogo otdeleniya (sav. saslushennyi deyatel' nauki prof.
Yu.A.Ratner) kafedry khirurgii Kazanskogo instituta usovershenstvo-
vaniya vrachey imeni V.I.Lenina.

(ROENTGEN RAYS, effects,
on skin grafts)

(SKIN TRANSPLANTATION,
eff. of x-ray on skin grafts)

SIGAL, M.Z., kandidat meditsinskikh nauk. (Kazan)

Methods of obtaining punctate from tumors for cytological examination. Klin. med., 33 no.10: 82-83 0 '55. (MLRA 9:2)

1. Iz otdeleniya onkologii kafedry khirurgii Kazanskogo GIDUV imeni V.I. Lenina (zav.---zasluzhennyy deyatel' nauki prof. Yu.A. Ratner)

(NEOPLASMS, diagnosis

cytol. exam., methods of puncture)

(CYTOLOGY,

cytodiag. of neoplasms, methods of puncture)

SIGAL, M.Z. (Kazan', ul. brat'yev Petryayevykh, d. 18, kv. 2)

A radio-surgical method, including free skin transplantation, in the treatment of skin cancer. Vop. onk. 5 no.1:79-83 '59. (MIRA 12:3)

1. Iz kafedry khirurgii i onkologii (zav. - zaslushennyy deyatel' nauki prof. Yu. A. Ratner) Kazanskogo gosudarstvennogo instituta usovershenstvovaniya vrachev imeni V.I. Lenina.

(SKIN NEOPLASMS. therapy,

radiocobalt with surg. tumor excis. & skin transpl. (Rus))

(COBALT, radioactive,

ther. of skin cancer, with surg. tumor excis. & skin transpl. (Rus))

(SKIN TRANSPLANTATION, in var. dis.

cancer, with radiocobalt ther. (Rus))

SIGAL, M. Z., (Kazan', Sibirskiy trakt, d. 26, kv. 20)

Prevention of cicatricial stenosis in anastomoses with the esophagus.
Grud. khir. 4 no.1:84-86 Ja-F '62. (MIRA 15:2)

1. Iz kafedry khirurgii i onkologii Kazanskogo Gosudarstvennogo
instituta dlya usovershenstvovaniya vrachey imeni V. I. Lenina
(zav. - zasluzhennyy deyatel' nauki prof. Yu. A. Ratner)

(ESOPHAGUS—SURGERY) (CICATRICES)

SIGAL, M.Z., dotsent; KABANOV, K.V., inzhener

Dilator lever for the arci costarum. Vest.khir. no.8:106-108
'61. (MIRA 15:3)

1. Iz kafedry khirurgii i onkologii (zav. -- prof. Yu.A. Ratner)
Kazanskogo instituta usovershenstvovaniya vrachey im. V.I. Lenina.
(SURGICAL INSTRUMENTS AND APPARATUS)

SIGAL, M.Z., dotsent

Extirpation of the gastric stump following surgery for cancer.
Kaz. med. zhur. no.2:31-34 Mr-Apr '62. (MIRA 15:6)

1. Kafedra khirurgii i onkologii (zav. - prof. Yu.A. Ratner)
Kazanskogo Gosudarstvennogo instituta dlya usovershenstvovaniya
vrachey imeni V.I. Lenina.
(STOMACH--CANCER) (STOMACH--SURGERY)

SIGAL, M.G. (Kazan', Tatarskaya ASSR, ul. Sibirskiy trakt, v. 36, kv. 20)

Transillumination, a method for the diagnosis of cancer of the stomach in laparotomy. Vop. onk. 8 no. 12: 3-13 '62.

(MIRA 17:6)

1. Iz kafedry khirurgii i onkologii (zav. - prof. Yu.A. Ratner)
Kazanskogo gosudarstvennogo instituta dlya usovershenstvovaniya
vrachey imeni Lenina (rektor - prof. I.V. Panilov).

SIGAL, M.Z., dotsent

Difficulties and errors in the diagnosis of pathological
changes in the stomach in laparotomy. Kaz. med. zhur. no.1:
85-91 Ja-F'63. (MIRA 16:8)

1. Kafedra khirurgii i onkologii (zav. - prof. Yu.A.Ratner)
Kazanskogo gosudarstvennogo instituta usovershenstvovaniya
vrachey imeni Lenina.
(ABDOMEN--SURGERY) (STOMACH--DISEASES)

SIGAL, M.Z., dotsent

Transillumination examination of the stomach wall in laparotomy.
Kaz. med. zhur. no.3:18-21 My-Je'63. (MIRA 16:9)

1. Kafedra khirurgii i onkologii (zav. - prof. YU.A.Ratner)
i kafedra topograficheskoy anatomii i operativnoy khirurgii
(zav. - prof. N.I.Komarov) Kazanskogo gosudarstvennogo insti-
tuta dlya usovershenstvovaniya vrachey imeni Lenina.
(ABDOMEN—SURGERY)

SIGAL, M.Z. (Kazan', Sibirskiy trakt, d.20, km.30)

Transillumination examination in surgery on the esophagus.
Grud. khir. 5 no.5:64-67 S-O '63. (MIRA 17:8)

1. Iz kafedry khirurgii i onkologii (zav. - prof. Yu.A. Ratner)
Kazanskogo instituta usovershenstvovaniya vrachev.

SIGAL, M.Z., dotsent; KHAMIDULLIN, Z.G. (Kazan')

Pathogenesis of extensive deposition of calcium in the soft
tissues. Probl. endok. i gorm. 9 no.5:78-81 S-0'63
(MIRA 16:12)

1. Iz kafedry onkologii (zav. - zasluzhennyy deyatel' nauki
RSFSR prof. Yu.A. Ratner) Kazanskogo instituta usovershenstvovaniya
vrachey imeni V.I.Lenina.

SIGAL, Moyshe Zel'manovich; DEKHTYAL', Ye.G., red.

[Transillumination in surgery on the stomach] Transillumination pri operatsiakh na zheludke. Moskva, Meditsina, 1964. 187 p. (MIRA 17:6)

SIGAL, M.Z., dotsent (Kazan', ul. Sibirskiy trakt, 23, kv.38)

Examination of blood vessels of the stomach by transilluminating
its wall during surgery. Vest. khir. 92 no.2:113-114 F'64.

(MIRA 17:9)

1. Iz kafedry khirurgii i onkologii (zav.- prof. Yu.A. Ratner)
i kafedry topograficheskoy anatomii i operativnoy khirurgii
(zav.-prof. N.I. Komarov) Kazanskogo instituta usovershenst-
vovaniya vrachey imeni V.I. Lenina (rektor -- dotsent Kh.Z.
Akhunzyanov).

STAN, N.

33402. Mekhanizmy Stsepleniya Avtomobiley YeAz. Avto obil', 1949, No. 10, c. 16-18.

50. Letopis' Zhurnal'nykh Statey, Vol. 45, Moskva, 1949

USSR/Medicine, ^{"dibazol"}~~"dibazol"~~ -

Jan 53

SIGNAL, N.N.

"Dynamics of the Electrocardiogram in Hypertonia and Angina Pectoris Patients Treated with Dibazol," N. N. Sigal (Kazan').

Klinicheskaya Meditsina, No 1, Vol 31, pp 51-55

Dibazol^s is an efficacious spasmolytic and hypotensive preparationⁿ producing lasting therapeutic action. Effectiveness of dibazol^s in ^{the} treatment of angina pectoris and of hypertensioⁿ, especially when the higher nervous activity is involved, proves that it acts on the central nervous system. At the present time this ^{drug} preparation is used successfully in treatment, during the restorative period of poliomyelitis, toxic mononeuritis, neuritis, etc. The most typical ^{change in the} deflections of electrocardiogram, after a course of treatment with dibazol, ^{s indicate} are normalisation of rhythmical frequency, contraction of the ^{extended} QRS complex of the ^{ventricles} and ^{upward} ~~upward~~ ^{rise} ~~upward~~ ^{that had been disposed below the isoelectric line} of the S-T interval. Dibazol produces no secondary symptoms.

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SHAL, N.N. (Kazan')

Mode of action of dibazole. Vrach.delo no.2:201-203 F '58.
(MIRA 11:3)

1. Zheleznodorozhnaya klinicheskaya bol'nitsa.
(BENZIMIDAZOLE)

SIGAL, N.N.

Dibazol therapy of angina pectoris. Sov.med. 22 no.11:36-41
N'58 (MIRA 11:11)

1. Iz Kazanskoy zheleznodorozhnoy klinicheskoy bol'nitsy (nachal'nik
N.A. Abramov, nauchnyy rukovoditel' raboty - prof. L.M. Rakhlin).
(ANGINA PECTORIS, ther.
dibazol (Rus))
(MUSCLE RELAXANTS, ther. use
dibazol. in angina pectoris (Rus))

SIGAL, N.N. (Kazan')

Treatment of coronary insufficiency and hypertension with dibazol.
Klin.med. 36 no.3:55-58 Mr '58. (MIRA 11:4)

1. Iz Kazanskoy zheleznodorozhnoy klinicheskoy bol'nitsy (ruko-
voditel' raboty - zaslushenyy dayatel' nauki Tatarskoy ASSR
prof. L.M.Rakhlin)

(CORONARY DISEASES, ther.

dibazol (Rus))

(HYPERTENSION, ther.

dibazol (Rus))

(MUSCLE RELAXANTS, ther. use

dibazol in coronary insuff. & hypertension (Rus))

POTEKHIN, D.Ye., docent; SIGAL, N.N., kabl. med. nauk

Comparative evaluation of the rate of spread of the pulse wave in patients with atherosclerosis and rheumatic fever. Kaz. med. zhur. no.6:28-29 N-D '63.

(MIRA 17:10)

1. Filial kafedry gospiatal'noy terapii (zav. - prof. A.G. Teregulov) Kazanskogo meditsinskogo instituta i laboratoriya funktsional'noy diagnostiki 6-y gorodskoy klinicheskoy bol'nitsy (glavnyy vrach - Ye.V. Khmelevtseva), Kazan'.

GONCHAROV, B.V., kand.tekhn.nauk; DEMIN, N.Ye., inzh.; SIGAL, S.B.;
TROIANOVSKIY, Yu.V.

Mounted equipment for placing concrete in foundations. Stroil. i dor.
mash. 10 no.2:3-4 F '65. (MIRA 18:3)

IL'IN, I.V.; KURYLEVA, N.A.; POPUGAYEVA, L.A.; SIGAL, Ya.B.

Chrysolites of Yakutian kimberlite pipes as precious stones for the jewelry industry. Razved. i okh. nedr 24 no.2:8-9 F '58.
(MIRA 11:4)

1. Vsesoyuznyy geologicheskiy nauchno-issledovatel'skiy institut.
(Yakutia--Chrysolite)

SIGAL, Ya.Ye., inzh.

New crane for rural construction. Mekh.stroi. 19 no.3:27-29
Mr '62. (MIRA 15:3)
(Cranes, derricks, etc.)

SPHAL, Ye.S., zaslužennyy vrach PPSR

Methodology for drainage of the subcutaneous cellular tissue.
Sov. med. 27 no.2:132-139 P 164. (MIRA 17:10)

1. Bugal'minskaya gorodskaya bol'nitsa (glavnyy vrach L.M. Mikhaylov).

KHASIS, G.L., kandidat meditsinskikh nauk.; SIGAL, Ye.S. (Burul'ma)

In vivo diagnosis of dissecting aortic aneurysm. Klin. med. 34
no.1:79-81 Ja '56 (MIRA 9:5)

1. Iz terapevticheskogo otdeleniya (zav.G.L. Khasis) Bugul'minskoy
gorodskoy bol'nitsy.

(AORTIC ANEURYSMS

dissecting, diag. during lifetime)

SIGAL, Ye.S. (Bugul'ma, Tatarskoy SSR)

Multiple peculiar disorder of heart rhythm with symptoms of Adams-Stokes disease. Vrach. delo no.3:305 Mr '57 (MLA 10:5)

1. Vtoroye terapevticheskoye otdeleniye (zav.-Ye.S. Sigal)
Bugul'minskoy gorodskoy bol'nitsy (nauchnyy rukovoditel'-sasl.
deyatel' nauki, prof. L.M. Bakhlin)
(HEART--DESRASES)

SIGAL, Ye.S.; KHASIS, G.L., kandidat meditsinskikh nauk

Clinical aspects of acute disseminated lupus erythematosus. Sov.med.
21 no.5:134-135 My '57. (MLRA 10:7)

1. Iz 2-go terapevticheskogo otdeleniya (sav. Ye.S.Sigal) Bugul'-
minskoy gorodskoy bol'nitsy (glavnyy vrach Ya.G.Pavlukhin).
(LUPUS ERYTHEMATOSUS, DISSEMINATED, case reports
clin. aspects)

KHASIS, G.L.; ~~SIGAL, Ye.S.~~

Clinical aspects of rheumatic thrombovasculitis. Terap. arkh. 32
no. 2:24-30 F '60. (MIRA 14:1)
(THROMBOSIS) (RHEUMATIC HEART DISEASE)

SIGAL, Ye.S.

Problem of the so-called aortic arch syndrome. Terap. arkh. 32
no. 9:80-86 '60. (MIRA 14:1)

1. Iz Bugul'minskoy gorodskoy bol'nitsy (glavnyy vrach G.G.
Kovalenko, nauchnyy rukovoditel' - prof. L.M. Pakhlin, konsul'-
tant - prof. Ya.L. Rappoport).
(AORTA—DISEASES)

SIGAL Ye.S.

Treatment of acute renal failure. Sov. med. 25 no.9:110-111 S '61.
(MIRA 15:1)

1. Iz Bugul'minskoy gorodskoy bol'nitsy (glavnyy vrach A.A.Dedyukhin).
(KIDNEYS--DISEASES)

SIGAL, Ye.S., zaslužhennyy vrach RSFSR

Stand for heart auscultation and simultaneous visual observation
of phases of the cardiac cycle. Kaz.med.shur. no.5:87 S-0 '62.
(MIRA 16:4)

1. Bugul'minskaya gorodskaya bol'nitsa (glavnyy vrach -
A.A.Dedyukhin, nauchnyy rukovoditel' - prof. L.M.Rakhlin).
(AUSCULTATION) (HEART-SOUNDS)

SIGAL, Ye.S., zasluzhennyi vrach RSFSR

Significance of the phenomenon of sound interference in the
appearance of a strong first tone in some rhythm disorders.
Kardiologiya 2 no.4:71-75 J1-Ag '62. (MIRA 15:9)

1. Iz Bugul'minskoy gorodskoy bol'nitsy (glavnyi vrach A.A.
Dedyukhin, nauchnyi rukovoditel' - prof. L.M.Rakhlin).
(ARRHYTHMIA) (HEART--SOUNDS)

SIGAL, Ye.S., zasluzhennyi vrach RSFSR (Butul'ma)

Hallucinatory syndrome as a sign of the side effects of butadione.
Klin.med. no.9:152-153 '62. (MIRA 15:12)

1. Iz butul'minskoy gorodskoy bol'nitsy (glavnyi vrach A.A.
Dedyukhin).

(HALLUCINATIONS AND ILLUSIONS) (BUTADIONE)

SIGAL, Ye.S.

Chronic recurrent agranulocytosis as a manifestation or increased sensitivity to penicillin in a nurse. Kaz. med. zhur. no.1:59-60 Ja-F'63. (MIRA 16:8)

1. Bugul'minskaya gorodskaya bol'nitsa (glavnyy vrach - A.A. Dedyukhin); nauchnyy rukovoditel' - prof. L.M. Rakhlin, Kazan'.
(PENICILLIN--TOXICOLOGY) (AGRANULOCYTOSIS)

MYSLYAYEVA, A.V., kand. med. nauk; ZAKHVATKINA, I.A.; SVERDLOV, S.L.;
 ANDREYEV, I.D., dotsent; GENADINNIK, I.S., kand. med. nauk;
 KUZNETSOV, A.A., NIKOLAYEVA, G.V., prof.; SILAKOVA, V.V., dotsent;
 SHAMLYAN, N.P.; FRIDMAN, M.N., dotsent; CORBYLEV, M.K.; SIGAL,
 Ye.S., zaslužhennyy vrach RSFSR; KHOLOPOVA, L.K.; GABOV, A.A.;
 LILEYEV, V.A.; MAKAREVICH, Ya.A., kand. med. nauk; SHELEPIN, A.S.;
 SHMELEV, M.M.; PEVZNER, G.I.; SILAYEV, Yu.S.

Abstracts. Sovet. med. 27 no.6:140-145 Je'63 (MIRA 17:2)

1. Iz kafedry propedevtiki ~~anatomicheskikh~~ bolezney i patologicheskoy anatomii Kazakhskogo meditsinskogo instituta (for Myslyayeva, Zakhvatkina). 2. Iz Novozybkovskoy mezhrayonnoy bol'nitsy Bryanskoy oblasti (for. Sverdlov). 3. Iz kafedry normal'noy anatomii II Moskovskogo meditsinskogo instituta (for Andreyev).
4. Iz kafedry obshchey khirurgii i kafedry rentgenologii Chelyabinskogo meditsinskogo instituta (for Genadinnik, Kuznetsov). 5. Iz kafedry propedevticheskoy terapii Ivanovskogo meditsinskogo instituta (for Nikolayeva, Silakova). 6. Iz Lovezerskoy rayonnoy bol'nitsy Murmanskoy oblasti (for Shamlyan).
7. Iz kafedry hospital'noy terapii Bashkirskogo meditsinskogo instituta i terapevticheskogo otdeleniye ~~8-oy~~ bol'nitsy (for

(Continued on next card)

SIGAL, Ye.Ya. (Vinnitsa)

Case of iodine tincture poisoning. Vrach.delo no.6:49 Je '59.
(MIRA 12:12)

1. Vinnitskaya oblastnaya klinicheskaya bol'nitsa (nauchnyy rukovoditel' - prof. B.S. Shklyar).
(IODINE--TOXICOLOGY)

SIGAL, Ye.Ya.; SLEPCHENKO, Z.S.

Zimnitskii's test in diseases of the cardiovascular system. Vrach.
delo no. 1:43-46 '61. (MIRA 14:4)

1. Terapevticheskoye otdeleniye (zav. otdeleniyem - prof. B.S.
Shklyar) Vinnitskoy oblastnoy bol'nitsy imeni Pirogova.
(CARDIOVASCULAR SYSTEM--DISEASES)
(URINE--ANALYSIS AND PATHOLOGY)

REBROV, A.S., inzh. [deceased]; USFENSKIY, V.P., inzh.; PLESHKOV,
D.I., kand. tekhn. nauk; BELEN'KIY, V.I., inzh.;
BERNADSKIY, G.I., inzh.; VALUTSKIY, I.I., inzh.; BAZANOV,
A.F., kand. tekhn. nauk; KOGAN, I.Ya., kand. tekhn. nauk;
RATNER, A.I.; VOROB'YEV, A.A., inzh.; BAUMAN', V.A., kand.
tekhn. nauk; NOSENKO, N.Ye., kand. tekhn. nauk; FOKIN,
M.V., inzh. [deceased]; VINOGRADOV, G.V., inzh.; GUSAKOV,
M.A., inzh.; SUDAKOVICH, D.I., inzh.; Primali uchastiye:
SIGAL', Ya.Ye., inzh.; TITOV, M.A., inzh.; OGIEVICH, V.Ya.,
kand. tekhn. nauk; ZIMIN, P.A., kand. tekhn. nauk, retsenzent;
LAPIN, F.A., inzh., retsenzent; PETROV, N.M., kand. tekhn.
nauk, retsenzent; RYAKHIN, V.A., kand. tekhn. nauk, retsen-
zent; KHOLIN, N.A., inzh., retsenzent

[Construction machinery; a reference manual] Stroitel'nye
mashiny; spravochnik. Izd.3., perer. i dop. Moskva, Ma-
shinostroenie, 1965. 788 p. (MIRA 18:6)

SIGAL, Ya.Ye, inzh.

New foreign pneumatic-tire and automobile tower cranes. Stroi.
i dor. mash. 10 no.6:28-32 Je '65. (MIRA 18:8)

SIGAL, Ya.Ye., inzh.

KP-40 tower crane. Stroi. i dor. mash. 8 no.1:3-6 Ja '63.
(MIRA 18:5)

Sigalevich, D.A.

7742
 8110. Nerves of the dura mater of the brain in man and mammals. D. A. Sigalevich. *Fiziol. Zhurn.* 1965, 11, 211-220; *Referat Zh. Biol.* 1965, Abstract No. 6424. The nerves of the dura mater of the brain were studied in man (48 subjects) and certain mammals, the cat, dog, sheep, pig, and rabbit (48 subjects). The dura mater of the brain is innervated by the trigeminal, trochlear, greater superficial petrosal, glossopharyngeal, vagus, accessory and hypoglossal nerves, the otic ganglion, the cavernous plexus and the plexuses of the middle meningeal and vertebral arteries. In animals the nerves of the dura mater are distributed mainly in its outer layer. In man the nerves of the dura mater are concentrated mainly round the vessels and are structurally more complex. On the basis of clinical observations during changes of the intracranial pressure it is concluded that the nerves of the dura mater conduct impulses at the moment of increased pressure. (Russian) O. LANS

SIGALEVICH, D.A. (Simferopol', ul. Chakhova, 17, kv. 7)

Material on the innervation of the sciatic nerve in man. Arkh
~~anat. gist i emb.~~ 38 no. 6:64-69 Je '60. (MIRA 13:12)

1. Kafedra normal'noy anatomii (zav. - prof. V.V. Bobin)
Krymskogo meditsinskogo instituta imeni I.V. Stalina.
(SCIATIC NERVE)

SIGALEVICH, D.A.

Viktor Vladimirovich Bobin; on his 70th birthday and 45 years in
medicine and teaching. Arkh. anat. gist. i embr. 39 no. 12:117-
119 '60. (MIRA 14:2)

(BOBIN, VIKTOR VLADIMIROVICH, 1890-)

SIGALEVICH, D.A. (Simferopol', ul. Chekhova, 17, kv.7)

Innervation of the peripheral nerves. Arkh.anat.,gist. 1 embr.
46 no.5:66-76 My '64. (MIRA 18:2)

1. Kafedra normal'noy anatomii (zav. - prof. V.V.Bobin) Krymskogo
meditsinskogo instituta, Simferopol'.

SIGALIN, A.

2362

658.561:658.53

Sigalin A. Automatic Work Tempo Control in Continuous System Production Organisation.

Automatyczna kontrola tempa pracy w potokowym systemie organizacji produkcji. Przegląd Techniczny. No. 1, 1953, pp. 14-17 2 figs.

Polish Technical Abstr.
No. 4, 1953
Technics and Economics

Analysis of the essentials of continuous work organisation. Review of the signal boards designed by Slawinski (Poland) for use in sugar works. The signal boards are provided with three types of measuring devices—technological parameter indicator, temperature indicator and working temp indicator. Readings taken on the signal board make it possible to remedying immediately any irregularities in the operation of any particular production unit. All continuous work processes can be controlled by means of an automatic signal lamp system. Successful attempts have, moreover, been made to transmit the automatic work tempo control signals over considerable distances, by means of a shortwave wireless transmitter.

SIGALIN, A.

Technical progress in the food industry during ten years of People's Poland.
(To be contd.) p. 229. (PRZEMYSŁ ROLNY I SPOŻYWCZY, Vol. 8, No. 7, July 1954,
Warszawa, Poland)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 3, No. 12, Dec.
1954, Uncl.

STGALIN, A.

Conferences on engineering problems in the food industry. p.91

PRZEMYSŁ SPOŻYWCZY. (Stowarzyszenie Naukowo-Techniczne Inżynierów i Techników Przemysłu Spożywczego) Warszawa, Poland
Vol.9, no.3, Mar. 1955

Monthly list of East European Accessions (EEAI) LC, Vol.9, no.1, Jan. 1960

Uncl.

SIGALIN, ...

The plan for the development of industry is a plan for the reduction of production cost.

p. 266, Vol. 9, no. 7, July 1955. PRZEMYSŁ SPOLNYCZY. Warszawa.

SO: East European Accessions List, (EAL), LC, Vol. 5, no. 2, Feb. 1956

SIGALIN, A.

SIGALIN, A. Struggle against difficulties resulting from the organization and introduction of new technology in the food industry., p. 225.

Vol. 10, no. 6, June, 1956
PRZEMYSŁ SPOŻYWCZY
TECHNOLOGY
Warsaw, Poland

So. East Accession Vol. 6, no. 2, Feb. 1957

SIGALIN, A.

Symposium on Electroacoustic Transducers

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|---|-----|
| 36. Underwater piezoelectric electroacoustic transducer with a flat frequency response from 100 Hz to 100 kHz. Zygmunt Nagiello | 353 |
| 37. Splitting of ultrasonic pulse in magnetostrictive transducers fed by overvolting systems. Jerzy K. Skrzela | 361 |
| 38. Calibration exciter for checking accelerometers. Per V. Bruel | 375 |
| 39. Calibrator for phonograph pickups. Zygmunt Komornicki | 379 |
| 40. Non-reflecting piezoelectric probe and equipment for measuring ultrasonic field intensities in fluids. J. Karpinski and | 385 |
| 41. Investigation of the bases of ultrasonic generation in a flow-type equipment. <u>Boleslaw Lesnink</u> | 393 |
| 42. Ultrasonic hydrogenerators. <u>C. Wachtl</u> , <u>A. Sigalin</u> , and <u>E. Karczmarczyk</u> | 401 |
| 43. Particular case of mechanoelectric transducer applied to steel construction testing. <u>Stefan Ziemia</u> and <u>Jerzy Kasinski</u> | 405 |

Card 7/8

Source: Proceedings of the Symposium on Electroacoustic Transducers (held in) Krynica, 17-26 September, 1958. Warsaw, Panstwowe Wydawnictwo Naukowe, 1961. 142.

SIGALIN, Jozef

General contest for the plan of two bridges on the Wisla River in
Warsaw, the "Lazienki" and "Swietokrzyski" bridge. Architektura Pol
no.11/12:461-469 '61.

SIGALIN, YU.

20365 SIGALIN, YU. Vosstanovleniye varshavy. Magistral' vostok-zapad.
Arkhitektura i stroit-vo, 1949, No. 5, s. 22-24.

SO: LETOIS ZHURNAL STATEY, Vol. 27, Moskva, 1949

SIGALIN-KROTOWSKA, Anna

~~Arteriovenous cholangiography. Wiadomosci lek. 8 no.3:121-124~~
Mar 55.

(BILIARY TRACT, radiography,
cholangiography, arteriovenous)

NATAPOV, B.S.; BARZIY, V.K.; OL'SHANITSKIY, V.Ye.; Prinimali uchastiye:
FILONOV, V.A., inzh.; YUDIN, M.I., inzh.; IOFFE, M.M., inzh.;
POPOV, S.M., inzh.; RYBALKO, G.I., inzh.; ODINETS, L.I., inzh.;
SIGALKO, F.V., inzh.; TSIVIRKO, D.Ye.; VOLOSHCHUK, M.D., inzh.

Heat treatment of cold-rolled sheet metal. Stal' 22 no.2:163-
165 F '62. (MIRA 15:2)

1. Zaporozhskiy mashinostroitel'nyy institut i zavod
"Zaporozhstal'". 2. Zavod "Zaporozhstal" (for Filonov,
Yudin, Ioffe, Popov, Rybalko, Odinet). 3. Zaporozhskiy
mashinostroitel'nyy institut (for Sigalko, TSivirko, Voloshchuk).
(Sheet steel—Heat treatment)

L 29258-66 -SCTB- DD

ACC NR: AP6019362

SOURCE CODE: RU/0012/65/061/006/0973/0979

AUTHOR: Sigall, S. (Lieutenant colonel; Doctor)

20
8

ORG: none

TITLE: Cupulometry, a new method in the selection and medical expert opinion of flying capacity

SOURCE: Revista sanitara militara, v. 61, no. 6, 1965, 973-979

TOPIC TAGS: aerospace personnel, aeronautic personnel, astronomic personnel, vestibular function

ABSTRACT: The author describes the techniques used in cupulometric (vestibular) tests, and the interpretation of the results to aid in the selection of flight personnel. For healthy aeronautic personnel primary and secondary adaptation to the tests is perfect; thus, their state of healthy can also be followed up by this means. Orig. art. has: 7 figures. [JPRS]

SUB CODE: 06, 05 / SUBM DATE: 01Apr64 / ORIG REF: 002 / OTH REF: 003
SOV REF: 004

Card 1/1 CC

BALANDYUK, G.S. ~~and~~.tekh.nauk; SIGALO, Ya.A.

Unified train sheets. Zhel.dor.transp. 43 no.11:87-89 N '61.
(MIRA 14:11)

1. Nachal'nik zheleznodorozhnogo ~~zavoda~~ ~~metallurgicheskogo~~
zavoda ~~metallurgicheskogo~~ Donetsk (for Sigalo).
(Railroads—Management)
(Railroads, Industrial)

LANDAU, Ya.M., dotsent; SIGALOV, A.B.

Prolonged conditioned sleep in pre- and postoperative care in
gynecological diseases. Akush. i gin. no.4:25-28 J1-Ag '54.
(MLRA 7:11)

1. Iz akushersko-ginekologicheskoy kliniki (zav. prof. P.P.
Sidorov) Stalinskogo meditsinskogo instituta.

(GYNECOLOGICAL DISEASES, surgery,
preop. & postop. cares, sleep ther. in)

(SLEEP, therapeutic use.

gyn. dis., in preop. & postop. cares)

(PREOPERATIVE CARE

sleep ther. in gyn. dis.)

(POSTOPERATIVE CARE,

sleep ther. in gyn. dis.)

SIGALOV, A.B.

Cases of extrauterine pregnancy. Sov.med. 19 no.9:77-78
S '55. (MLRA 8:12)

1. Iz akushersko-ginekologicheskoy kliniki (sav.-prof. P.P.
Sidorov) bol'nitsy imeni K. Ye. Boroshilova g Stalino
(glavnyy vrach N.I.Lyutaya)
(PREGNANCY, ECTOPIC, surg.)

KUZNETSOV, V.A., dotsent; SIGALOV, A.B.

Ways of lowering the rate of stillbirths. Sov.med. 21 no.2:35-41
F '57. (MLRA 10:6)

1. Iz akushersko-ginekologicheskoy kliniki (zav. - prof. P.P.Sidorev)
Stalinskogo meditsinskogo instituta (dir. - dotsent A.M.Ganichkin)
(STILLBIRTH, prev. and control
in Russia)

SIGALOV, A.P.; SIGALOVA, Ye.A.

Role of histological tests for the early diagnosis of malignant neoplasms of the cervix and body of the uterus. Sov.med. 21 Supplement:16 '57. (MIRA 11:2)

1. Iz akushersko-ginekologicheskoy kliniki Stalinskogo meditsinskogo instituta.
(UTERUS--CANCER) (HISTOLOGY, PATHOLOGICAL)

SIGALOV, A.B., assistant

Two cases of echinococcosis of the female genitalia: Akush. i
gin. 34 no. 5:115-116 S-0 '58 (MIRA 11:10)

1. Iz akushersko-ginekologicheskoy kliniki (zav. - prof. P.P. Sidorov)
Stalinskogo meditsinskogo instituta na baze klinicheskoy bol'nitsy
imeni K.Ye. Voroshilova (glavnyy vrach N.I. Lyutaya).

(GYNECOLOGICAL DISEASES, case reports
echinococcosis (Rus))

(ECHINOCOCCOSIS, case reports
female genitalia (Rus))

SIGALOV, A. B., Cand Med Sci -- (diss) "Problems of the symptomatology, diagnostics and treatment of patients with malignant and potentially malignant tumors of ovaries." Stalino, 1959. 20 pp; (Stalinskiy State Medical Inst im A. M. Gor'kiy); 250 copies; price not given; (KL, 25-60, 140)

SIGALOV, A.B.

Hypogalactia in parturients with cardiovascular diseases. Sov.med.
23 no.12:64-68 D '59. (MIRA 13:4)

1. Iz akushersko-ginekologicheskoy kliniki (zaveduyushchiy - prof.
P.P. Sidorov) Stalinskogo instituta (direktor - dotsent A.M. Ganich-
kin).

(LACTATION)

(CARDIOVASCULAR DISEASES compl.)

SIGALOV, A.B., assistant

Immediate and remote results of operative treatment of malignant tumors of the ovaries. Akush. i gin. 35 no.3:106-109 My-Je
'59. (MIRA 12:8)

1. Iz akushersko-ginekologicheskoy kliniki (zav. - prof.P.P. Sidorov) Stalinskogo meditsinskogo instituta.
(OVARIES, neoplasms
surg., immediate & remote results (Rus))

LANDAU, Ya.M., dotsent; SIGALOV, A.B.; KARPUSHIN, V.P.; MIROSHNICHENKO,
V.P.; RUDNEVSKIY, Yu.I.

Physiological blood loss in the puerperal period of normal labor.
Sov.med. 24 no.3:89-94 Mr '60. (MIRA 14:3)

1. Iz akushersko-ginekologicheskoy kliniki (zav. prof. P.P.Sidorov)
Stalinskogo meditsinskogo instituta (dir. - dotsent A.M.Ganichkin).
(PUERPERIUM)

SHEYNIN, P.I.; SIGALOV, A.B.

Criteria for malignancy of thecoma of the ovary. Vop.onk. 7
no.12:63-66 '61. (MIRA 15:1)

1. Iz kafedry patologicheskoy anatomii (zav. - doktor med.nauk dots. Ye.A. Dikshteyn) i kafedry akusherstva i ginekologii (zav. - doktor med.nauk prof. P.P. Sidorov) Donetskogo meditsinskogo instituta (dir. - dots. A.M. Ganichkin) na baze klinicheskoy bol'nitsy imeni M.I. Kulinina (glavnyy vrach - kand.med.nauk B.A. Shaparenko).

(OVARY--TUMORS)

SIGALOV, A. B.

Errors in the diagnosis of malignant tumors of the ovaries.
Akush. i gin. no.4:74-78 '62. (MIRA 15:7)

(OVARIES—CANCER)

SIGALOV, A.B. (Donetsk, 66, ul. Pishkinskaya, d.80, kv.13); SOROKA, P.G.
(Donetsk, 3, ul. Alma-atinskaya, d.7, kv.7)

Thio-TEPA therapy of far advanced malignant tumors of the ovaries.
Vop. onk. 9 no.11:98-102 '63. (MIRA 18:2)

1. Iz kafedry akusherstva i ginekologii No.1 (ispolnyayushchiy
obyazannosti zaveduyushchego kafedroy - dotsent V.P. Miroshnichenko,
nauchnyy konsul'tant doktor med. nauk prof. P.P. Sidorov) Donetskogo
meditsinskogo instituta (rektor - doktor med. nauk prof. A.M.
Ganichkin) na baze Oblastnoy klinicheskoy bol'nitsy imeni M.I.
Kalinina (glavnyy vrach - V.F. Zubko).

SIGALOV, A. G.

Differentsial'no-ekvivalentnyye metriki. I., Dissertatsiya (1946).

SO: Mathematics in the USSR, 1917-1947

edited by Kurosh, A. G.,

Markushevich, A. I.,

Rashevskiy, P. K.

Moscow-Leningrad, 1948

SIGALOV, A. G.

Pochti izometricheskiye otobrazheniya i psedodifferentsiruyemost'. Dan, 52 (1946), 11-12.

SO: Mathematics in the USSR, 1917-1947

edited by Kurosh, A. G.,

Markushevich, A. I.,

Rashevskiy, P. K.

Moscow-Leningrad, 1948

SIGALOV, A. G.

Sigalov, A. G. Représentations presque isométriques et la pseudo-dérivabilité. C. R. (Doklady) Acad. Sci. URSS N° 52, 11-12 (1916)

Let E be a normed linear space. A function f defined on $0 < t \leq 1$ with values in E is called pseudo-derivable at 0 if (a) $\lim_{t \rightarrow 0} \|f(t)\|/t$ exists and (b) whenever two sequences $\{t_k\}, \{t'_k\}, 0$ are so chosen that $t_k = O(t'_k)$ and $t'_k = O(t_k)$, then $\|f(t_k)/t_k - f(t'_k)/t'_k\| \rightarrow 0$ as $k \rightarrow \infty$. A transformation T of a neighborhood U of the zero element of E to a neighborhood V of the zero of another normed linear space is called almost isometric if $T(0) = 0$ and for every $\epsilon > 0$ there exists $\delta > 0$ such that $\|x\|$ and $\|x'\| < \delta$ imply $\|Tx - Tx'\| < \epsilon(\|x\| + \|x'\|)$. The author proves that, if T is almost isometric, if f with values in U is pseudo-derivable at 0, and if $\varphi(t) = Tf(t)$ for $0 < t \leq 1$, then φ is also pseudo-derivable. M. M. Day (Urbana, Ill.).

Source: Mathematical Reviews,

Vol 8, No. 3

Smw

Sigalov, A.G.

"On the Double Integrals of Computation of Variations in the Parametric Form"
Inst. Mathematics, Moscow State Univ. im M. V. Lomonosov (1946)

Sigalov, A. G. Sur les intégrales doubles du calcul des variations dans la forme paramétrique. C. R. (Doklady) Acad. Sci. URSS (N.S.) 55, 383-386 (1947).

The author discusses lower semi-continuity by considering the action of the integrand (which is defined as a convex, positively homogeneous, positive definite function on the bivectors) on polyhedral approximations. The result which he states generalizes a theorem of T. Radó [Trans. Amer. Math. Soc. 51, 336-361 (1942); these Rev. 3, 229].

H. Federer (Providence, R. I.).

Source: Mathematical Reviews, 1948, Vol. 9, No. 3

Sigalov, A. G.

Sigalov, A. G. On quasiregular double integrals of the calculus of variations. Mat. Sbornik N.S. 23(65), 127-138 (1948). (Russian)

If $P(x, y, z, p, q)$ is continuous in all variables, nonnegative and convex in (p, q) for each (x, y, z) , the integral $\iint_D P(x, y, f(x, y), f_x(x, y), f_y(x, y)) dx dy$ (where D is the square $0 \leq x \leq 1, 0 \leq y \leq 1$) defines a functional on the class of surfaces absolutely continuous in the sense of Tonelli. This functional is lower semi-continuous on the class of surfaces mentioned. On each surface of this class the value of the integral is the limit of its values on a sequence of polyhedra converging to the surface. It is not assumed that P has continuous derivatives; however, the semicontinuity theorem with P assumed convex is known to follow without great difficulty from the case in which P has continuous derivatives and is positive quasi-regular. The proofs do not require a knowledge of the theory of Lebesgue area. The results can also be obtained by specializing to nonparametric form certain known theorems on integrals in para-

(1942); also W. Scott, Bull. Amer. Math. Soc. these Rev. 3, 229; 4, 155].

E. J. McShane.

Source: Mathematical Reviews,

Vol 10 No. 6

Sigalov, H. E.

Sigalov, A. G. On the existence of an absolute minimum for double integrals of the calculus of variations. Doklady Akad. Nauk SSSR (N.S.) 71, 617-620 (1950). (Russian)

Assume $F(x, A)$ defined and continuous for all x in a neighborhood of the closure of a convex open set D_1 and for all A , and to be positively homogeneous of degree 1 and convex in A for each fixed x . In the definition of admissibility in the preceding review the author now adds the requirement that T lie in D_1 , and in the definitions of $\mu_0(L^1)$ and $\mu_0(P)$ he adds the requirement that every neighborhood of D_1 contain almost all T_n . The conclusion of the existence theorem is asserted to remain valid. Two other theorems are stated asserting conditions which assure the existence of minimizing surfaces of small diameter. The contents of this note consist almost entirely of indications of the possibility of constructing a minimizing sequence satisfying the criterion of compactness stated in the preceding note. For T of finite Lebesgue area $J(T)$ is defined to be the infimum of $\liminf J(T_n)$ for all sequences of surfaces of L^1 tending to T . This extension is shown to coincide with Cesari's integral $J_C(T)$. E. J. McShane (Charlottesville, Va.).

Smirnov

Source: Mathematical Reviews, 1950

Vol 11

No. 8

APPROVED FOR RELEASE: 08/23/2000

CIA-RDP86-00513R001550520016-6"

Sigalov, A. G.

Sigalov, A. G. The existence of an absolute minimum for double integrals of the calculus of variations in parametric form. Doklady Akad. Nauk SSSR (N.S.) 70, 769-772 (1950). (Russian)

The theorem named in the title has in the past shown itself to be highly intractable. In these notes the author indicates the main steps of its demonstration. Let K be the unit square $0 \leq x, y \leq 1$; let L^2 be the class of surfaces having representations $z = f(x)$ ($x = (x^1, x^2, x^3)$; xxK) which are absolutely continuous in the sense of Tonelli and have finite Dirichlet integrals. The integrand $F(x, A)$ is assumed defined and continuous for all $x \in R^3$ and all $A = (A^1, A^2, A^3)$, and is assumed positively homogeneous and convex in A for each fixed x . If $f \in L^2$ is represented by $f(x)$, with properties just named, the three Jacobians are denoted by A^1, A^2, A^3 .

for each open or closed subset G of K , the integral $\int_G F(x, A) dx$ is denoted by $J(G, F)$, or by $J(G)$ when $F(x, A)$ happens to be $\|A\|$; the integral to be discussed is $J(T) = J(K, F)$. Given a Jordan curve Γ , a surface T is "admissible" if it belongs to L^2 and is bounded by Γ . The

number μ_1 is defined to be $\inf_{T \in L^2} J(T)$, μ_2 is the infimum, for all sequences $\{T_n\}$ of L^2 surfaces with boundaries Γ , tending to Γ , of $\liminf J(T_n)$; $\mu_3(\Gamma)$ is analogous, the surfaces T_n being required to belong to the class \mathcal{B} of polyhedra. The existence theorem announced is as follows. Assume Γ and F as above; assume further

$$M = \sup_{\Gamma \in L^2} F(x, A) < \infty, \quad m = \inf_{\Gamma \in L^2} F(x, A) > 0.$$

Then if admissible surfaces exist, there is an admissible surface T such that $J(T) = \mu_1 = \mu_2(\Gamma) = \mu_3(\Gamma)$.

The lower semicontinuity of $J(T)$ is assumed known [cf. E. J. McShane, Ann. of Math. (2) 33, 460-484 (1932)]. It remains to exhibit a convergent minimizing sequence. For a region G , define the "simply connected cover" \tilde{G} to be the least set containing the interiors of all simple closed polygons lying in G [this is the substitute definition stated in the note reviewed below]. Let \tilde{G} be the boundary of \tilde{G} . Let $\|f, G\|$ denote the length of the image under f of the curve \tilde{G} in \mathbb{R}^3 . For each region $G \subset K$ define $Q(f, G) = J(G, F) / \|f, G\|$; if the denominator is not zero. Define $\lambda_1(f, G)$ to be the difference of the infima of f on G and on its boundary \tilde{G} ; $\lambda_2(f, G)$ the corresponding difference of suprema;

$$\lambda_3(f, G) = \max \{ \lambda_1(f, G), \lambda_2(f, G) \};$$

$$\lambda(f, G) = \max \{ \lambda_1(f, G), \lambda_2(f, G), \lambda_3(f, G) \}, \quad i=1, 2, 3.$$

Source: Mathematical Reviews, 1950 Vol 11 No. 8

SIGALOV, A. G.

"Existence of Continuous Solutions of Two-Dimensional Regular Problems of Variational Calculus." Sub 15 Nov 51, Mathematics Inst, Acad Sci USSR.

Dissertations presented for science and engineering degrees in Moscow during 1951.

SO: Sum. No. 480, 9 May 55.

PA 187152

USSR/Mathematics - Calculus of Variations Mar/Apr 51

"Two-Dimensional Problems of the Calculus of Variations," A. G. Sigalov *to be*

"Uspekh Matemat Nauk" Vol VI, No 2, pp 16-101 *done*

All results contained in this report have been published earlier. Sigalov acknowledges assistance of V. Plotnikov and Yu. Gleskiy. This report concerns the problem of Plateau. Cf. G. Bliss, "The Calculus of Variations for Multiple Integrals," Amer Math Monthly, 49, No 2, 1942, pp 77-89. Readings: Existence of Absolute Minimum; Parametric and Nonparametric Forms; Repeated Integral on a Surface; Uniform Convergence; Selection of Convergent Subsequence 187152 X

USSR/Mathematics - Calculus of Variations Mar/Apr 51
(Contd)

of Polyhedra; Revision of the Minimizing Sequence;
Semicontinuity.

SIGALOV, A. G.

187152

S. G. A. V. 1.6

Sigalov, A. G. On the oscillation of a stationary function of a quadratic double integral. Doklady Akad. Nauk SSSR (N.S.) 31, 505-508 (1951). (Russian)

The author establishes the following theorem: Let the function $Z(x, y) \in A^2$ in a closed region D of the (x, y) -plane (that is, Z is to be absolutely continuous in Tonelli's sense in D and Z_x^2 and Z_y^2 are to be summable in D), and let Z satisfy the variational condition

$$\iint_D (aZ_x^2 + bZ_y^2 + dZ + r) dx dy + (bZ_x^2 + cZ_y^2 + eZ + s) dy = 0$$

whenever the function $q \in A^2$ in D and $q = 0$ in $D - G$, for any region $G \subset D$. Suppose, further, that for any region $D_1 \subset D$

$$(i) \iint_{D_1} (|d|^{r_1} + |e|^{r_2} + |f|^{r_3} + |r|^{r_4} + |s|^{r_5} + |t|^{r_6}) dx dy \leq L_1$$

where $r_1 > 2, r_2 > 1, r_3 > 2, r_4 > 1, r_5 > 1,$

$$(ii) \sup_{(x,y) \in D_1} |Z(x,y)| \leq L_2$$

$$(iii) aZ_x^2 + 2bZ_xZ_y + cZ_y^2 \geq m(Z_x^2 + Z_y^2)$$

where $m > 0$, for any values Z_x, Z_y and for almost all $(x, y) \in D_1$, (iv) $\iint_{D_1} (Z_x^2 + Z_y^2) dx dy \leq L_3$. Then $|Z(x, y)| \leq L_4$ in D_1 , where L_4 is a constant depending only on $m, r_1, r_2, r_3, r_4, r_5, r_6, L_1, L_2$ and not on the coefficients a, b, \dots and the region D_1 . H. P. Mulholland (Birmingham).

Source: Mathematical Reviews,

Vol 13 No. 5

Sigalov, A.G.

Sigalov, A. G. Conditions for the existence of a minimum of double integrals in an unbounded region. Doklady Akad. Nauk SSSR (N.S.) 81, 741-744 (1951). (Russian)

In a previous note [same Doklady 73, 891-894 (1951); these Rev. 12, 268], the author studied the existence of a minimum for $\iint F(x, y, z, p, q) dx dy$ when the admissible $z(x, y)$ are defined in a bounded domain D , possess a given boundary function, and are uniformly bounded ($|z| \leq a$). He now discards the assumption $|z| \leq a$, and establishes the existence of a bounded minimizing sequence (so that the problem reduces to the bounded one). In so doing he weakens a previous assumption $\alpha > 1$ to $\alpha \geq 1$ and introduces an additional condition. Let $g(z, L) = \inf F/p + iq|$ for x, y, p, q where $(x, y) \in D$ and $|p + iq| \leq L$ and let

$$[h(z)]^- = \inf F(x, y, z, 0, 0)$$

for $(x, y) \in D$. The additional condition, which he supposes satisfied for some $L > 0$, is then: There exists an $f(n)$ such that $\int f(z) dz > n$ whenever this integral extends over a finite sum of disjoint z -intervals of measure $m(z) > n$ situated in $|z| > f(n)$.

L. C. Young (Madison, Wis.).

Source: Mathematical Reviews,

Vol. 13 No. 8

SIGALOV, A. G.

Calculus of Variations

Conditions of differentiability and analyticity of solutions of two-dimensional problems of the calculus of variations. Dokl. AN SSSR, 85, No. 2 1952.

Gives the conditions imposed on the integrand expression $F(x, y, z; p, q)$ in the regular two-dimensional problem in nonparametric form, for the fulfillment of which conditions the continuous solution possesses the same properties of differentiability and analyticity as does the integrand expression. The basic results are reduced to a number of theorems involving the existence of solution. Presented by Acad M.A. Lavrent'ev
7 May 52. 252T65

9. Monthly List of Russian Accessions, Library of Congress, November 1952, Uncl.
2

Mathematical Reviews
May 1954
Analysis

10-7-54
LL

✓ Sigalov, A. G. Two-dimensional problems of the calculus of variations in nonparametric form. Trudy Moskov. Mat. Obshch. 2, 201-233 (1953). (Russian)
The principal result of this paper, which is gotten by combining Theorems A and B below, was announced by Sigalov in a somewhat different form in a note in Doklady Akad. Nauk SSSR (N.S.) 73, 891-894 (1950); these Rev. 12, 268.

He is concerned with integrals of the form

$$(J, D, F) = \int_D F(x, y, z, p, q) dx dy.$$

Here D is a bounded region, $z = f(x, y)$, $p = f_x$, and $q = f_y$. The boundary values of $f(x, y)$ are prescribed and continuous, and f is required to belong to the class L_α ($\alpha \geq 1$) of continuous functions satisfying the two following conditions: (i) $f(x, y)$ is AC in x for almost all y and vice versa; (ii) $\iint_D (f_x^2 + f_y^2)^{\alpha/2} dx dy < \infty$. The boundary D' is "uniformly regular", that is, the diameters of its components are bounded from zero.

The author first states a theorem "in the bounded domain". Theorem A: Let F , F_x , and F_y be continuous, the Weierstrassian nonnegative, and suppose that for some positive m and for $(p^2 + q^2)$ large enough $F/(p^2 + q^2) \geq m$. Suppose finally that the "approximation theorem" holds for F (see below). Then if there is an f in L_α taking on the

prescribed boundary values, satisfying $|f(x, y)| \leq z_0$ on D , and yielding a finite value for (f, D, F) , some f_0 in L_n minimizes (f, D, F) among all $f \in L_n$ with the bound z_0 and the prescribed boundary values.

The proof of Theorem A rests mainly on the author's regions of redefinition. Because F satisfies the approximation theorem, one can start with a minimizing sequence of piecewise linear functions. A region G with $G \subset D$ is fundamental if, for some c , G is a component of the set $|f(x, y) < c|$. G is a region of redefinition for the function f if G is fundamental and $(f, G, F) > (c, G, F)$. Sigalov has proved elsewhere [Uspehi Matem. Nauk (N.S.) 6, no. 2(42), 16-101 (1951); see also Amer. Math. Soc. Translation no. 83 (1953), the theorem on p. 67; these Rev. 13, 257; 14, 769] that a piecewise linear minimizing sequence can be replaced by another, still piecewise linear, whose functions have no regions of redefinition. Hence for every fundamental region G , associated with the value c of the function f , we have $(f, G, F) \leq (c, G, F)$. Using this fact, the growth condition on F , and the compactness of the (x, y, z) -space, the author

presentation of G is normal and of type I and there exists a single group algebra on which all characters are defined (Theorem 8).

Existence and decomposition theorems are promised in a subsequent article.

G. W. Mackey.

② 72
Sigalov, A. G.

SIMION, A. G.

Mathematical Reviews
May 1954
Analysis

10-7-54
LL

Signalov, A. G. Two-dimensional problems of the calculus of variations in nonparametric form transformed into parametric form. Doklady Akad. Nauk SSSR (N.S.) 93, 405-408 (1953). (Russian)

In two earlier papers [same Doklady (N.S.) 73, 891-894 (1950); 81, 741-744 (1951); these Rev. 12, 268; 13, 758] the author announced a theorem asserting the existence of an absolute minimum for the integral $\iint_D F(x, y, z, p, q) dx dy$ when the admissible functions take on given values on the boundary and the integrand satisfies the condition $F \geq m(1+p^2+q^2)^{\alpha/2}$ when $p^2+q^2 \geq L^2$, $m > 0$ and $\alpha > 1$, and certain other conditions are satisfied. In the paper reviewed above he gave the details on which the first two papers were based. In the introduction to this last paper he again asserted this theorem for $\alpha > 1$. However, the proof given in the body of the paper holds only in the case $\alpha \geq 2$.

The author's object in the present note is to call attention to this error, which obviously weakens his results very much (for $\alpha > 2$ Tonelli proved approximately this theorem twenty years ago [Acta Math. 53, 325-346 (1929); Ann. Scuola Norm. Super. Pisa (2) 2, 89-130 (1933); see also Morrey, Bull. Amer. Math. Soc. 46, 439-458 (1940); these Rev. 2, 60] and Morrey extended it to $\alpha = 2$ [Univ. California Publ. Math. (N.S.) 1, 1-130 (1943); these Rev. 6, 180]), and then presents some results which partially restore the situation in the range $1 < \alpha < 2$.

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Sigalov, A. G.

(1)
His solutions are gotten by converting the problem to parametric form and accepting parametric surfaces as solutions of the nonparametric problem. By generalizing somewhat the class of admissible nonparametric functions $s = f(x, y)$, he then obtains a weakened form of his previous assertion. Proofs and details are apparently reserved for a later paper. *J. M. Danskin* (Washington, D. C.).

SIGALOV, A. G.

FD-826

USSR/Mathematics - Variational calculus

Card 1/1 : Pub. 64 - 1/10

Author : Sigalov, A. G. (Gor'kiy)

Title : Two-dimensional problems of variational calculus in nonparametric form which are transformed into parametric form.

Periodical : Mat. sbor., 34(76), 385-406, May-Jun 1954

Abstract : Using a parametric transformation the author studies problems on the absolute minimum of the regular and quasiregular double integral $I[f] = \iint F(x, y, f, f'_x, f'_y) dx dy$ under the general assumption where a equals or is greater than 1 in $F \geq m(1 + (f'_x)^2 + (f'_y)^2)^{1/2a}$, following the classical work of S. N. Bernshteyn in 1941. The special case $a = 2$ was handled by the author in Trudy Moskovskogo matem. obshchestva, Vol 2(1953), 201-233.

Institution : --

Submitted : November 17, 1952

SIGALOV, A.G.

"Dirichlet, conformal mappings, minimum surfaces." *Usp. mat. nauk.*
10 no.1:237-239 '55 (MLRA 8:6)
(Conformal mapping)(Courant, Richard, 1888-)

111

PG - 17

CARD 1/2

SUBJECT
AUTHOR
TITLE
PERIODICAL

USSR/MATHEMATICS/Geometry
SIGALOV A.G.

Variation problems with admissible surfaces of some topological types.
Uspechi mat.Nauk 12, 1, 53-98 (1957)
reviewed 5/1957

The author generalizes the classical problem to determine a surface T of minimal area which is bounded by a given curve Γ . The generalization leads to the determination of the minimum of the functional

$$I(T) = \iint_T P(f, \Delta_f) du,$$

where $P(x, \Delta)$ is a function of six arguments

$$x = (x^1, x^2, x^3), \quad \Delta' = (\Delta^1, \Delta^2, \Delta^3)$$

which satisfies the usual conditions of continuity, positive homogeneity with respect to Δ , convexity with respect to Δ and the positive definiteness. Here $x = f(u, v)$, $(u, v) \in D$ is the parameter representation of the surface T and $\Delta_f = (\Delta_f^1, \Delta_f^2, \Delta_f^3)$ are the three functional determinants of the

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S/N/42-15-1-26/27

AUTHOR: Sigalov, A. G.

TITLE: Correction to the Paper: "Variational Problems With Permissible Surfaces of Arbitrary Topological Types"

PERIODICAL: Izvestiya matematicheskikh nauk, 1960, Vol 15, Nr 1, p 261 [USSR]

ABSTRACT: In the review of the article (A. G. Sigalov, Variational Problems With Permissible Surfaces of Arbitrary Topological Types," Usp. mat. nauk. XII, Nr 1 (73) (1957) 53-98, L. Young indicates that W. Fleming drew his attention to the fact that the vector function, introduced on pp 84-90 of above reference does not belong to class A^2 . The author corrects this by presenting a new proof. There is a Soviet reference.

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S/020/60/130/06/007/059

AUTHOR: Sigalov, A.G.

TITLE: Conditions for the Compactness of a Family of Finite Topological Surfaces

PERIODICAL: Doklady Akademii nauk SSSR, 1960, Vol 130, Nr 6, pp 1203-1205 (USSR)

ABSTRACT: Let all surfaces of a family of surfaces $\{T\}$ have a finite topological type (H, r) (i.e. the region of variation of the parameters is homeomorphic to a surface of the genus H with r boundary curves) and lie in a bounded part of the surrounding space. Let the areas of the surfaces be bounded in their totality. It is shown that for the compactness of the family $\{T\}$ with respect to the metric of Frechet it is necessary and sufficient that all surfaces of the family are uniformly non-degenerated (resp. not fibred) in a certain sense. 4 theorems are formulated. There is 1 Soviet reference.

ASSOCIATION: Nauchno-issledovatel'skiy radiofizicheskiy institut pri Gor'-kovskom gosudarstvennom universitete imeni N.I.Lobachevskogo (Radio Physical Scientific Research Institute at the Gor'kiy State University imeni N.I.Lobachevskiy)

PRESENTED: October 9, 1959, by P.S.Aleksandrov, Academician

SUBMITTED: September 3, 1959

Card 1/1

SIGALOV, A.G.

New algorithm in the theory of perturbations of a continuous spectrum. Dokl. AN SSSR 158 no.1:49-52 S-O '64 (MIRA 17:8)

1. Predstavleno akademikom V.I. Smirnovym.

Abstract. 1. 2. 3. 4. 5.

Mixed the class of certain multidimensional differential operators in quantum mechanics. Dokl. Akad. Nauk SSSR 197 1976:1976-1976 Ag 1976.

1. Primenenie teorii V.I. Smirnova.

ZHISLIN, G.M.; SIGALOV, A.G.

Mathematical theory of atomic spectra. Dokl. AN SSSR 163 no.2:323-325
Jl '65. (MIRA 18:7)

1. Nauchno-issledovatel'skiy radiofizicheskiy institut pri
Gor'kovskom gosudarstvennom universitate im. N.I.Lobachevskogo.
Submitted January 15, 1965.

L 65295-65 EWT(d)/EWT(1)/YS(v)-3/YSS-2 TT/AST/GW

ACCESSION NR: AP5021255

UR/0293/65/003/004/0618/0629
629.195.2:621.39

AUTHORS: Getmantsev, G. G.; Kalashnikov, M. I.; Rykov, V. I.; Benediktov, Ya. A.;
Yerukhinov, E. M.; Belikov, V. V.; Bakhnin, V. M.; Kantor, L. Ya.; Kozlov,
Yu. S.; Kunilov, M. V.; Mitryakov, N. A.; Puzirev, I. M.; Rapoport, V. O.; Sigalov,
A. G.; Cherepovitskiy, V. A.; Ikin, E. A.

TITLE: The results of an experiment on radio communications via "Echo 2" and the
moon at a frequency of 162.4 megacycles between the observatories of Jodrell Bank
and Zimenki

SOURCE: Kosmicheskiye issledovaniya, v. 3, no. 4, 1965, 618-629

TOPIC TAGS: moon, satellite communication, radio telescope, radio transmission,
satellite tracking, scientific research coordination / Jodrell Bank radio tele-
scope, Zimenki observatory radio telescope, BESM 2 electronic computer

ABSTRACT: During February-March 1964 the Academy of Sciences of the USSR, NASA
of the USA, and the General Post Office Department of Great Britain conducted an
experiment to establish one-way radio communication at 162.4 megacycles via the
passive satellite "Echo-2" and the moon. Echo-2 was used for 34 communication

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ACCESSION NR: AP5021255

tests of 10-15 minutes (the time interval permitted by Echo's orbit), and the moon was used for 15 test runs between the Echo tests. The transmitting equipment at Jodrell Bank and the receiving unit of the Zimenki Observatory are described in detail. Echo orbit information furnished by NASA, visual observations, and radio tracking data from fixed stations were fed to a BESM-2 electronic calculator which provided programmed tracking control. The received signal exhibited strong fluctuations separable into two periods: 1) a 1-2 minute fluctuation associated with Echo-2 distortion from a sphere and with tracking errors; 2) a 3-10 second period associated with small surface irregularities. The rapid fluctuations varied with each test. Voice signals, slowed by a factor of 8, were barely intelligible. Telegraph, teletype, and photofacsimile transmission, in general, were unsatisfactory, but in periods of high signal-to-noise ratios intelligible messages were received. The moon transmissions were not as clear but did furnish scientific information. Unexpected transmission losses included 3-5 db for polarization losses and 1-2 db for unknown causes. The international cooperation was excellent, with the Soviet submitting a complete report. Offers for further cooperation have been extended. Orig. art. has: 3 tables, 7 figures, and 4 formulas.

ASSOCIATION: none
SUBMITTED: 18Apr65
NO REF SOV: 000
Card 2/2 rev

ENCL: 00
OTHER: 002

SUB CODE: AA, BC

L 5048-66 EWT(d) IJP(c)

ACC NR: AP5021514

SOURCE CODE: UR/0038/65/029/004/0835/0860

AUTHORS: Zhislin, G. M.; Sigalov, A. G.

ORG: none

TITLE: On the spectrum of the energy operator in subspaces corresponding to irreducible representations of permutation groups for atoms with stationary nuclei

SOURCE: AN SSSR. Izvestiya. Seriya matematicheskaya, v. 29, no. 4, 1965, 835-860

TOPIC TAGS: quantum theory, Schrodinger equation, Coulomb interaction, group theory, electron energy level, differential operator, permutation, eigenvalue

ABSTRACT: The spectrum of the singular differential operator $H = T_n + V_n + W_n$ is studied, where T_n is the kinetic energy operator for n electrons, V_n is the Coulomb potential of the electrons in the field of an infinitely massive nucleus, and W_n is the sum of the pair Coulomb interaction operators for the electrons. H acts on the Hilbert space of complex-valued functions of $3n$ independent variables, possessing a definite permutation symmetry. Applying group-theoretical methods

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UDC: 517.9

090.8717

L 13489-66 EWT(d) IJP(c)

ACC NR: AP6001672

SOURCE CODE: UR/0038/65/029/006/1261/1272

AUTHORS: Zhislin, G. M.; Sigalov, A. G.

ORG: none

TITLE: Some mathematical problems in the theory of atomic spectra

SOURCE: AN SSSR. Izvestiya. Seriya matematicheskaya, v. 29, no. 6, 1965, 1261-1272

TOPIC TAGS: atomic spectrum, group theory, mathematic method, Hilbert space, Hamiltonian

ABSTRACT: The spectra of the energy operator for atoms is studied mathematically in subspaces corresponding to irreducible representations of direct products of commutation, rotation, and inversion groups. The symmetry properties of atomic spectra are based on the solution of the equation $H\psi = \lambda\psi$. The three symmetry groups of this equation are: the commutation group S_n ; the rotation group O_3 ; and the inversion group \mathbb{Z}_2 . If the indices of the irreducible representations of these groups are denoted by K, χ, ω respectively, the wave equation has the solution $\psi^{K\chi\omega}$. The existence of this equation is proved in the following analysis where the spectrum of the operator H is investigated in a subspace corresponding to the irreducible representations of the S_n group. The proof consists of four theorems. Theorem I proves that the inequality $\lambda_0(D_n^2) < \mu_{n-1}^2$

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ACC NR: AP6001672

always exists; the necessary and sufficient conditions for $\lambda_0(D_n^\sigma)$ to be the point of discrete spectra for H_n^σ are

$$\overline{\lambda_0(D_n^\sigma)} < \mu_{n-1}^\sigma,$$

and that the point $\lambda \geq \mu_{n-1}^\sigma$ forms the limiting spectrum of the H_n^σ operator.

Theorem II shows that for an irreducible type of symmetry σ

$$\lambda_0^\sigma < \lambda_1^\sigma < \dots < \lambda_{p-1}^\sigma \quad (p > 1);$$

the following inequality always holds $\lambda_p(D_n^\sigma) < \mu_{n-1}^\sigma$.

Using theorems I and II, it is then proved that

$$H_{n-1}\varphi^{(i)} = \mu\varphi^{(i)}, \quad i = 1, 2, \dots, 2l+1$$

is true if $\mu = \mu_{n-1}^\sigma = \lambda_0(D_{n-1}^\sigma)$ is the characteristic value of the operator H_{n-1} , and

that for $\sigma = (k, 0, -1)$, $n = 2$, $\varphi^{(k, 0, -1)} = 0$, then $\lambda_0^{\sigma, k+1} < \lambda_0^\sigma$ at $\sigma \neq (0, 0, -1)$.

Finally, for an arbitrary σ , if $\{\psi_m\} \in C_0^\infty(D_n^\sigma)$, then

$$\int_{R_n} |\psi_m|^2 d\Omega + \int_{R_n} |\text{grad } \psi_m|^2 d\Omega < C \quad (m = 1, 2, \dots),$$

$$\int_{\Omega} |\psi_m|^2 d\Omega \rightarrow 0 \quad (m \rightarrow \infty)$$

for any bounded domain $\Omega \subset R_n$, $\lim_{m \rightarrow \infty} L_n(\psi_m) > \mu_{n-1}^\sigma$.

Cord 2/3

Cord 3/3

SIGALOV, B.

Control over the wage fund. Sots. trud no.10:98 O '56. Sots. trud
no.10:98 O '56. (MIRA 9:11)

1. Nachal'nik planovogo otdela tresta "Tatburneft".
(Wages)

1. SIGALOV, B. YA Shokhin, M. ♀.
2. USSR (600)
4. Grasses
7. Wintering of grass. biul. Glav bot. sada. no '52.

9. Monthly List of Russian Accessions, Library of Congress, March 1953. Unclassified.